

# Conceptualizing Digital Government for Social Solidarity

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This paper motivates the study of the impact of digital government on social solidarity; builds a conceptual foundation with four types of solidarity – group-based, compassionate, instrumental and emphatic; relates digital government to the type and moment – pre-technological, technological and post-technological of solidarity; and puts forward the type-moment frame to study how digital government is supporting social solidarity in different policy contexts.

CCS CONCEPTS • Applied computing • Computers in other domains • Computing in government • E-government

**Keywords:** Digital technology, Digital government, Solidarity, Conceptualization

## 1 INTRODUCTION

The last decades demonstrated the power of digital transformation, utilized by governments around the world, to improve government processes, increase the reach of public services, open interaction modes between government and citizens, and strengthen public policy implementation. The results include higher government performance [1], increased coherence [2], and more transparency [3]. At the same time, through deluge of information and misinformation, the erosion of trust, solidarity or other traditional values [11], and polarization, digital transformation continues to impact social life. This was demonstrated during the Covid19 pandemic, with examples of solidarity – accepting restrictions for common good and discord – treating restrictions as suppression of individual rights [4], the role of government authorities and digital tools to manage the emergency, and further increasing polarization and distrust. From the above, we posit a meaningful relationship between digital transformation, government and digital government on one side, and solidarity on another. However, digital government research focuses primarily on government-citizen and government-government relationships, less on government-business relationships, and rarely on citizen-citizen relationships characterizing social solidarity. Thus we ask, “What is the impact of digital government on social solidarity?”. Addressing this question requires a systematic and comprehensive research project. In preparation for this project, our aim is to create a framework for examining existing literature to detect open avenues for further research in this promising and necessary topic.

## 2 CONCEPTUALIZING SOCIAL SOLIDARITY

Solidarity is a propensity to support a target group whose welfare one deems important [5]. Typically, this group is vulnerable and unable to reach its goals by itself. Three features of solidarity are: 1) it mediates between the individual and the collective, 2) it creates a unity of action, and 3) it requires individuals to conform to the group [6]. When routinized, the logic of solidarity creates social cohesion and fosters collaboration in search for a common good: it arranges how people with different interests can live together peacefully and constructively [16]. It can be normative – invoking the collective spirit and taking action to ensure the wellbeing of its members, or descriptive – invoking connections with others who may not be part of the same community but are faced with common threat or vulnerability [10]. Durkheim [7] introduced the distinction between “Mechanic” and “Organic” solidarity. The former, typical for traditional societies, highlights the similarity between community members and their collective consciousness over individuality. The latter, typical for modern societies, highlights interdependence between individuals to deliver wellbeing. Organic solidarity is the glue that keeps society together even when the bonds are eroding [9]. Thus Thijsenn [15], following Honneth [8], defined four types of solidarity depending on whether individuals belong to the same or different groups and whether the benefits are individual or structural. This distinction might allow for the detection and comparison of different expressions of solidarity.

**Table 1.** Solidarity typology adapted from [15]

	Same Group	Different Group
Structural Benefit	Group-based Solidarity Perception of similarity amongst members, the benefits of solidarity are shared with all the group, works in reaction to a structural opposite (enemy) and from internal social obligations	Instrumental solidarity Members self-perceive as belonging to different groups but they see a common benefit of acting in solidarity
Individual Benefit	Compassionate solidarity	Emphatic solidarity

Perception of solidarity amongst members, benefits of solidarity are unevenly distributed amongst group member, who react to individual inputs

Members self-perceive as belonging to different groups, but see an individual benefit for acting in solidarity based upon e.g. moral principles,

### 3 DIGITAL GOVERNMENT FOR SOCIAL SOLIDARITY – TWO HYPOTHESIS

Durkheim's premise was that analyzing laws governing societies can indicate the type of solidarity behind social practices: repressive laws relate to mechanical solidarity and restitutive laws to organic solidarity [12]. If we extrapolate to other aspects of public management, it should be possible to connect management practices with solidarity types. Assuming that 1) different types of solidarity guide managerial acts, 2) public administrations are the executors of managerial traditions and 3) digital technologies are public management tools, we hypothesize (H1) that technology use by government is connected to the government-supported type of social solidarity [15]. With few exceptions like [13, 14], the solidarity and digital government research is scarce and dispersed. To analyze it following the frame above, we query "moments of solidarity" that lie behind government transformation into digital government, i.e. digital government can work to strengthen solidarity in different (non-exclusive) moments: in reaction to an event (e. g. the invasion of Ukraine), in prevention of a risk (e. g. climate change mitigation); an unforeseen consequence of digitalization (e. g. open government data, shared for economic purposes, enhances the solidarity effect of digital platforms); at the core of digital public service (e.g. delivering grants for baby births); etc. More generally, we hypothesize (H2) that three "moments of solidarity" – pre-technological, technological and post-technological – mark progression in how governments transform themselves into digital government in the service of social solidarity.

### 4 CONCLUSIONS

This paper motivated the study of the impact of digital government on solidarity, built a conceptual foundation for this study including four solidarity types [15], and developed two hypotheses relating digital government to solidarity. Together, the hypotheses frame digital government support to solidarity in two axes – type and moment. The frame has the potential of unveiling similarities and tendencies of how digital government supports solidarity in different contexts, paving the way for further analysis, refinement of theoretical constructs, or interpretation of data. Our future work will validate this frame empirically and test its usefulness through systematic literature review that takes stock of the existing research on digital government for solidarity, and uncovers avenues for further development of the field.

### ACKNOWLEDGEMENTS

The work of David Duenas-Cid was supported by the project ELECTRUST, funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101038055, and the Narodowe Centrum Nauki, award No 2020/39/B/HS5/01661

### REFERENCES

- < bib id="bib1">< number>[1]</ number> Yang, K., & Rho, S. Y.: E-government for better performance: Promises, realities, and challenges. *International Journal of Public Administration*, 30(11), 1197-1217 (2007). <https://doi.org/10.1080/01900690701225556>.</ bib>
- < bib id="bib2">< number>[2]</ number> Estevez, E., Fillottrani, P., & Janowski, T.: From e-government to seamless government. In *Proceedings of the Conference on Collaborative Electronic Commerce Technology and Research, COLLECTeR Iberoamerica 2007, Cordoba, Argentina, vol. 1, pp. 1-11 (2007)*.</ bib>
- < bib id="bib3">< number>[3]</ number> Bertot, J. C., Jaeger, P. T., & Grimes, J. M.: Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government information quarterly*, 27(3), 264-271 (2010). <https://doi.org/10.1016/j.giq.2010.03.001>.</ bib>
- < bib id="bib4">< number>[4]</ number> Arab-Zozani, M., Hassanipour, S.: Sharing Solidarity Experiences to Overcome COVID-19. *Ann Glob Health*, 86, 1, (2020). <https://doi.org/10.5334/aogh.3035>.</ bib>
- < bib id="bib5">< number>[5]</ number> Arnsperger, C., Varoufakis, Y.: *Toward a Theory of Solidarity*. *Erkenntnis*, 59, 2, 157–188 (2003). <https://doi.org/10.1023/A:1024630228818>.</ bib>
- < bib id="bib6">< number>[6]</ number> Borger, V.: *The Concept of Solidarity*. pp. 25–52 Cambridge University Press (2020). <https://doi.org/10.1017/9781108864633.004>.</ bib>
- < bib id="bib7">< number>[7]</ number> Durkheim, É.: *The Division of Labor in Society*. Free Press, New York (1984).</ bib>
- < bib id="bib8">< number>[8]</ number> Fraser, N., Honneth, A.: *Redistribution or Recognition? A Political-Philosophical Exchange*. Verso Books, London (2003).</ bib>
- < bib id="bib9">< number>[9]</ number> Herzog, L.: Durkheim on Social Justice: The Argument from "Organic Solidarity." *American Political Science Review*, 112, 1, 112–124 (2018). <https://doi.org/10.1017/S000305541700048X>.</ bib>
- < bib id="bib10">< number>[10]</ number> Laitinen, A., Pessi, A.B.: *Solidarity: Theory and Practice*. Lexington Books, Lanham (2014).</ bib>
- < bib id="bib11">< number>[11]</ number> Lorenz, W.: *Social Work and a New Social Order – Challenging Neo-liberalism's Erosion of Solidarity*. *Soc Work Soc*, 3, 1, 93–101 (2005).</ bib>
- < bib id="bib12">< number>[12]</ number> Mishra, C., Rath, N.: *Social solidarity during a pandemic: Through and beyond Durkheimian Lens*. *Social Sciences & Humanities Open*, 2, 1, 100079 (2020). <https://doi.org/10.1016/j.ssaho.2020.100079>.</ bib>
- < bib id="bib13">< number>[13]</ number> Reina-Rozo, J.D., Medina-Cardona, L.F.: *Science, technology and Solidarity*. *International Journal of Engineering, Social Justice, and Peace*, 8, 1, 92–110 (2021). <https://doi.org/10.24908/ijesjp.v8i1.14279>.</ bib>
- < bib id="bib14">< number>[14]</ number> Sideri, K., Prainsack, B.: COVID-19 contact tracing apps and the governance of collective action: social nudges, deliberation, and solidarity in Europe and beyond. *Policy Studies*, 44, 1, 132–153 (2023). <https://doi.org/10.1080/01442872.2022.2130884>.</ bib>
- < bib id="bib15">< number>[15]</ number> Thijssen, P.: From mechanical to organic solidarity, and back. *European Journal of Social Theory*, 15, 4, 454–470 (2012). <https://doi.org/10.1177/1368431011423589>.</ bib>
- < bib id="bib16">< number>[16]</ number> Vasta, E.: The controllability of difference: Social cohesion and the new politics of solidarity. *Ethnicities*, 10, 4, 503–521 (2010). <https://doi.org/10.1177/1468796810378326>.</ bib>

